

St. George Island, Alaska
Request for No Further Action
Abandoned City Diesel Tank Disposal Site
TPA Site No. 21

Site: Abandoned City Diesel Tank Disposal Site, Two-Party Agreement (TPA) Site Number 21

Location: St. George Island, Alaska, approximately 800 miles southwest of Anchorage in the Bering Sea. TPA Site Number 21 (“the site”) is located along the village waterfront northeast of the St. George Tanaq Corporation Fish Plant in the City of St. George. (Figures 1 and 2) The site is also east of TPA Site 2, the Former Drum Storage Area.

Type of Release: Petroleum fuel hydrocarbons from decommissioned diesel fuel aboveground storage tanks (ASTs).

History: Eleven ASTs removed from TPA Site Number 1, the Former Diesel Tank Farm, were relocated to TPA Site Number 21 in the 1970s. Two ASTs removed from TPA Site Number 1 were also relocated to TPA Site Number 2, west of the site, in the 1970s. (Figure 2) The site was undeveloped prior to the tank relocation.

Summary of Site Investigations:

A preliminary assessment (PA) of the site performed in 1992 observed the eleven ASTs at the site. (Figure 2) The tanks appeared to be empty, though one of the tank atmospheres had a photoionization detector reading of 12 parts per million, vapor (ppmv). Ten unlabeled, rusted drums were also observed during the PA (E&E 1993).

Site investigation activities were performed for TPA Site 21 in 2001 (TTEMI 2003) as part of an overall investigation of TPA Sites 1, 2, and 3. Eight soil samples were collected from four locations corresponding to the locations of the eleven ASTs removed from TPA Site 21 in 1997 (Polarconsult 1997a). (Figure 3) The samples were analyzed for gasoline-range, diesel-range, and residual-range organics (GRO, DRO, RRO), as well as volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and heavy metals. Note that samples collected from the former locations of the two ASTs on TPA Site Number 2 had contamination above site cleanup levels (TTEMI 2003). Contamination associated with those two ASTs will be addressed at a later date with TPA Site Number 2.

GRO, DRO, RRO, VOCs and SVOCs analytical results from the TPA Site Number 21 samples did not exceed the Alaska Department of Environmental Conservation (ADEC) Method Two regulatory cleanup levels. While seven of the eight TPA Site Number 21 samples exceeded the regulatory cleanup level for arsenic and all eight site samples exceeded the regulatory cleanup level for total chromium, the observed levels of arsenic and total chromium were consistent with natural background levels for St. George Island (TTEMI 2003). (Table 1) Further, all samples were analyzed for hexavalent chromium and were below the detection limit of 0.12 mg/kg. Nearly all of the chromium in site soil is the trivalent form with an ADEC Method Two regulatory cleanup level of 100,000 mg/kg. As a result, site samples are considered below the cleanup levels for heavy metals.

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Summary of Clean up Actions:

In accordance with a May 1997 work plan (Polarconsult 1997b), AST and drum removal and disposal activities were performed in 1997 (Polarconsult 1997a). (Figure 4) No soil removal was performed at this site, since soil concentrations were below the regulatory cleanup levels.

Recommended Action:

In accordance with paragraph 59 of the Two-Party Agreement (NOAA 1996), NOAA submits written confirmation that all corrective action has been completed and that no further action is required at TPA Site Number 21.

References:

E&E. 1993. *Preliminary Assessment of National Oceanic and Atmospheric Administration Sites, Pribilof Islands, Alaska*. Ecology and Environment. February 1993.

NOAA. 1996. *Pribilof Islands Environmental Restoration Two Party Agreement*. Attorney General's Office File No. 66 1-95-0126. National Oceanic and Atmospheric Administration. January 26, 1996.

Polarconsult. 1997a. *Environmental Site Investigation, St. George Debris Removal Report, Pribilof Islands Environmental Restoration Project*. Polarconsult Alaska, Inc. December 31, 1997.

Polarconsult. 1997b. *Work Plan for Site Assessment and Contaminated Soil Removal*. Polarconsult Alaska, Inc. May 1, 1997.

TTEMI. 2003. *Draft Site Characterization Report, Oceanfront Sites, Two-Party Agreement Sites No. 1, 2, and 3, Pribilof Environmental Restoration Project, St. George Island, Alaska*. Tetra Tech EM Inc. January 20, 2003.

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Table 1: Summary of Heavy Metals Data for Abandoned City Diesel Tank Disposal Site

Analyte	ADEC Regulatory Level ^a	TPA2-GP8-0-2 08/08/2001 (0 to 2)	TPA2-GP9-0-2 08/08/2001 (0 to 2)	TPA2-GP9-2-3.5 08/08/2001 (2 to 3.5)	TPA2-GP10-0-2 10/20/2001 (0 to 2)	TPA2-GP10-0-2C ^c 10/20/2001 (0 to 2)
Arsenic	2	6.4	11.8	5.2	6.7	4.3
Barium	1,100	52.8 J	83.4 J	186 J	92.2	79.5
Cadmium	5	0.2 U	1	0.2 U	0.2 U	0.2 U
Chromium	26	35.5	43.2	39	29.8	28.7
Hexavalent Chromium	26	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U
Lead	400/1,000 ^b	18	62	7	260	16
Mercury	1.4	0.07	0.75	0.05 U	0.08	0.07
Selenium	3.5	0.8 U	1.9	0.6 U	0.7 U	0.6 U
Analyte	ADEC Cleanup Level ^a	TPA2-GP10-2-4 10/20/2001 (2 to 4)	TPA2-GP10-4-6 10/20/2001 (4 to 6)	TPA2-GP11-0-2 10/20/2001 (0 to 2)	TPA2-GP11-2-4 10/20/2001 (2 to 4)	
Arsenic	2	3.7	1.9	4.4	3.3	
Barium	1,100	116	159	91.8	71.9	
Cadmium	5	0.2 U	0.3 U	0.2 U	0.2 U	
Chromium	26	32.2	34	28.4	33.4	
Hexavalent Chromium	26	0.12 U	0.13 U	0.12 U	0.12 U	
Lead	400/1,000 ^b	4	3	13	3	
Mercury	1.4	0.05 U	0.05 U	0.05	0.06 U	
Selenium	3.5	0.6 U	0.7 U	0.6 U	0.6 U	

Notes: **BOLD** Indicates detection (concentration exceeds reporting limit).

GRAY Shaded cell indicates detected concentration above the ADEC cleanup level.

(a) Regulatory cleanup levels shown are the more stringent of the applicable ADEC method two cleanup levels in 18 Alaska Administrative Code 75.341 for the site

(b) Lead cleanup levels are 400 mg/kg for residential sites and 1,000 mg/kg for commercial sites.

(c) Field duplicate sample

(U) Analyte was not detected at or above its reporting limit; reporting limit listed.

(J) The analyte was positively identified, but the associated numerical value is an estimated concentration. The result is considered to be qualitatively acceptable, but quantitatively unreliable.

Background: St. George Island background levels of arsenic and total chromium range from 0.3 mg/kg to 6.0 mg/kg and 11.3 mg/kg to 45.6 mg/kg, respectively

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For the National Oceanic and Atmospheric Administration

John Lindsay
NOAA, Pribilof Project Office

Date

Approvals: In accordance with Paragraph 59 of the Two Party Agreement, this is to confirm that all corrective action has been completed at TPA Site Number 21, the Abandoned City Diesel Tank Disposal Site, in accordance with the Agreement and that no further action is required.

For the Alaska Department of Environmental Conservation

Louis Howard
Alaska Department of Environmental Conservation
Remedial Project Manager

Date